SOME NOTES ON BREEDING CONISTRA STAUDINGERI DE GRASLIN (LEP.: NOCTUIDAE) FROM THE E. PYRENEES

By B. GOATER*

The hamlet of St. Marsal lies in the foothills of the Pyrénées Orientales a few km, to the north of Amélie-les-Bains Palada. On the night of 15-16 April 1981 I obtained at m.v. light there a female Conistra which I identified as C. rubiginea Denis & Schiffermüller. Knowing that this species is given to considerable variation in the south of France, I kept the moth in a plastic box provided with scored twigs of apple (Malus), and fed her nightly with sugaring mixture. On 28 April, it was observed that a number of eggs had been laid during the previous night on the twigs; more were deposited during the next few nights, and the young larvae started to hatch on 10 May. By 14 May, 50 had been found and transferred to another box where they were provided with apple leaves. They took to these readily, preferring the withering leaves that were starting to rot, and growing into what seemed to me to be typical, hairy, sluggish larvae of C. rubiginea, a species I had bred before from Surrey. Unfortunately, therefore, I neglected to observe closely and to take detailed notes of the structure and progress of the larvae, except to record from time to time that they were continuing to thrive. On 23 June, the first of them began to spin cocoons in vegetable debris on the surface of soil with which they had been provided, and even the stragglers had done so by the end of the month. The larvae remained unchanged in their cocoons until mid-August at least. Four moths emerged on 25 September, and a few (never more than five) almost daily until 21 October, the last during the fourth week of the month when I was away.

The moths that emerged, 51 in all, were extremely variable, and it soon became apparent that they were not *C. rubiginea* but *C. staudingeri* de Graslin, a species known from Portugal, Spain, E. Pyrenees, S. E. France and Switzerland. *C. staudingeri* is a smaller species than *C. rubiginea*, the wingspan in my series ranging from 30-32mm. compared to 34-36mm. in *C. rubiginea*. It is thus about the same size as *C. ligula* Esper, and indeed some specimens could easily be mistaken for it, though the forewing is slightly narrower, the costa straighter and the anterior half of the termen very straight, whereas in *C. ligula* it is very slightly concave and in *C. rubiginea* it is convex. The underside of the forewing possesses features which are

helpful in distinguishing the three species:

In C. rubiginea, the ground colour is pale straw; the discal area is suffused with fuscous except along the veins and contains a large, blackish discal spot measuring c.1 x 2mm; the fringe is strongly chequered and there is a row of small dark terminal dots opposite the dark components of the fringe; the postmedian line is represented by a series of elongate fuscous spots.

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The hindwing, too, is pale straw coloured, with a fine, wavy postmedian line which is most conspicuous anteriorly, a series of large, fuscous, subterminal spots and a large, broadly crescentic

discal spot.

In *C. staudingeri*, the ground colour is greyish buff and is devoid of contrasting markings; there is a delicate fuscous discal suffusion which fades abruptly at the almost invisible postmedian line and anteriorly about 2mm. before it, so there is a highly characteristic square-shaped pale area here, continuous with the pale terminal region, which just includes the very small, narrow discal spot; the whole wing is highly glossy.

The hindwing is finely freckled and is marked by a weakly undulate postmedian line, a few indistinct markings in the subter-

minal region and a large, crescent-shaped discal spot.

In \overline{C} . *ligula*, the ground colour is reddish tinted, the whole of the basal region of the forewing to the postmedian line evenly suffused fuscous, and the outer part of the wing suddenly paler at the evenly curved postmedian line which runs from costa to dorsum.

The hindwing is heavily freckled reddish fuscous, the dark, narrow postmedian line moderately distinct, but the discal spot

small and weakly developed.

My bred series of C. staudingeri may be classified as follows:

i) forewing deep fuscous brown, markings indistinct; costa sometimes with two small pale patches and up to six blackish dots, median line sometimes just visible as a strongly elbowed darker line, and dark patch in dorsal region of reniform stigma also sometimes just visible — ab. obscurior Oberthür (23 specimens)

ii) forewing very deep glossy reddish brown, without markings except for indications of pale and dark spots on costa (1 specimen)

(iii) forewing light reddish chestnut with fine, broken crosslines and speckles moderately distinct, with dark dorsal dot in reniform stigma and indication of elbowed median line — ab. vaccinioides Oberthür (10 specimens)

iv) forewing coloured and marked much as in *C. rubiginea*, the ground colour rather darker, in one specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily suffused reddish fuscous in median area — ab. *multiscripta* Warren (3 specimen heavily suffused reddish fused reddish fu

mens)

v) greyish fuscous, with yellowish tint, markings distinct, including small round orbicular stigma and reniform stigma, which contains a blackish dorsal spot — ab. scortina Staudinger (1 specimen)

vi) deep blue-grey, the area between antemedian and postmedian lines intensely suffused black; thorax deep reddish black (1 specimen)

vii) forewing dove-grey, markings reddish, moderately distinct;

fringe reddish; thorax reddish – ab. eos Oberthur (7 specimens)

viii) forewing darker grey, markings fuscous, with little tint of red; fringe dark fuscous; thorax dark fuscous — ab. *livina* Staudinger (4 specimens)

ix) an individual resembling ab. vaccinioides, but with forewings

reduced to one third the normal area (1 specimen).

The pupa (described from exuvia) of C. staudingeri is c. 14mm.

long, short and broad, rounded anteriorly and tapered posteriorly, the integument reddish chestnut, thin and highly glossy, with very fine puncta on abdominal segments and striae on wing cases; spiracles small, slightly raised; cremaster with two fine, closely set spines, the tips of which curl outwards. It is enclosed in a firm, oval cocoon of silk interwoven with fragments of soil and vegetable débris.

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THE LARVA OF PERIBATODES SECUNDARIA D. & S. — A morning's hard beating in Orlestone Forest, Kent on 1st May 1982 produced one small larva of this moth from Norway Spruce. I believe this to be the first record of the larva in the wild in this country. — R. G. CHATELAIN, 65 East Drive, Orpington, Kent.

PHYLLONORYCTER DUBITELLA (H.-S.) AND COLEOPHORA LIMOSIPENNELLA (DUP.) IN SOUTH YORKSHIRE. — During a visit to Denaby Ings, near Mexborough on 17th July 1981 I collected a few Phyllonorycter mines from Salix caprea and from these three moths emerged in late July and August. As they appeared to be P. dubitella I made a search for further mines in October and November. They were not common for I found only about a dozen and from these seven moths were reared in March and April 1982. These latter moths had all the strigulae a golden colour without any trace of white, strongly edged inwardly with black and in this respect did not agree with the description in Bradley, Jacobs & Tremewan (Ent. Gaz. 20: 18) who state 'pattern pure white'. However Ffennell (Ent. Gaz. 21: 252) commented that his moths showed considerable variation in the amount of white, in some specimens this being much reduced both in area and brightness. I sent specimens to the Rev. D J. L. Agassiz and I am grateful to him and to Dr. I. Watkinson for confirming their identity. According to Agassiz (Proc. Brit. Ent Nat. Hist. Soc. 13: 81) dubitella has previously been recorded only as far north as Worcestershire and Huntingdonshire.

In late June 1981 I found two cases of *C.limosipennella* on elm at Sprotbrough, near Doncaster and on 1st June 1982 I found twelve cases at the same locality on a roadside sapling elm. On an adjacent leaf to one of these cases was the excision made at the base of the leaf by the larva for its final case with the vacated overwintering case attached to the edge of the cut-out on the underside. Although there is evidence of larval feeding on this leaf it is not possible to determine whether this occurred before or after the excision of the final case. In his notes on the pre-hibernation history of this species Emmet (*Ent. Rec.* 92: 133-4) drew attention to the gap in our knowledge of the larval habits in spring prior to the final cases appearing in midsummer. Uffen in Emmet (1979:81) gives the distribution as 'south-east England' and this record appears to be the most northerly to date. — H. E. BEAUMONT, 7 Brampton Road, West Melton, Rotherham, South Yorks., S63 6AN.